

THE "LITTLE ONE"

PHOTOS BY THE AUTHOR

By DICK SARPOLUS

• This model is the first smaller-than-60 size pattern type ship we have tried in a long time. For serious competition work we are convinced .60 powered aircraft will always perform best. If the rules permitted .80s, we're sure the resulting larger designs would be even better fliers. This naturally doesn't mean that there is not a place for smaller engines and aircraft... their advantages are obvious; lower cost, lower operating expense, ease of transportation, etc. We enjoy flying the "Little One" and lately have been flying it more than the big ones...

except for serious competition. For some types of Fun Fly competition, the smaller model even has an advantage.

In laying out the design for the Little One, we went for a very conventional layout... normal areas, moments, airfoil, etc. An honest airplane. Appearance of the prototype was average, with an upright uncowed engine. The next version had a side mounted, faired in engine, swept fin/rudder, and a forward mounted canopy for a "faster" appearance. The cosmetic changes had no effect on the flying characteristics. The styling was in part dictated by the construction; the rolled 1/32 plywood fuselage, quick and easy to build, does not offer much design flexibility. The inherent sway-back toward the tail is disguised with a dorsal fin, and a faired-in engine streamlines the nose section.

The rolled plywood fuselage is not a new idea, of course. We really believe in it for sport aircraft, and wondered if it would result in a light enough model in this small size. It does... and it is very rugged. A foam core wing was used, for simplicity and speed of construction.

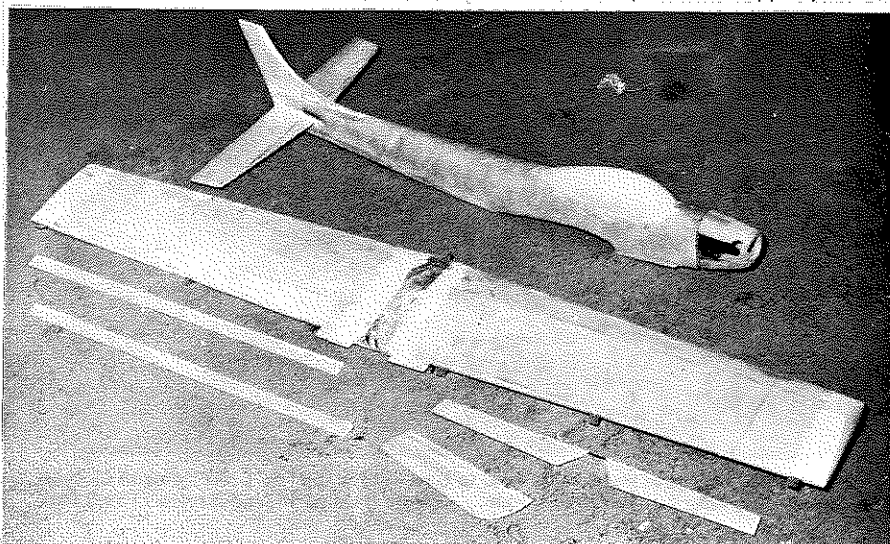
We hate to cut out wing ribs. Full symmetrical section. Tail surfaces are simply sheet balsa. In total, it is about the fastest way to build an airplane we know of, and still get a good looking model. **CONSTRUCTION**

Starting with the fuselage; the rolled plywood may be new to many builders. Don't worry... it does not result in a "brick" and it is easy. Cut the 1/32 plywood to shape and assemble as many pieces to it as possible before rolling; this would include the 1/16 plywood doublers, the balsa wing saddles, 3/16 square lower fuselage edge pieces, and the tail block. Wet the plywood on the outer surface center line toward the tail; if it cracks at all, the crack will be covered by the fin. Roll the fuselage and insert Bulkheads 2 and 3. We have used large C-clamps to hold this assembly while drying, later pulling the tail to-

gether and gluing. We have also used five-minute epoxy and simply held the fuselage rolled over the two bulkheads until the epoxy cured. The firewall is added, along with bottom fuselage planking.

We mount the nylon nose gear block with flat head bolts so the radial engine mount... Kraft, Tatone, or Edson... will mount over them. A Sullivan SS-6 or SS-8 fits well. We considered retractible landing gear, but the weight increase might be a bit much on a small plane like this. With the engine mount installed with engine, cowl blocks can then be shaped around the engine, faired into the spinner.

Foam core wings are pretty common now; most clubs seem to have a member who can cut them to order. If you can't find a foam cutter locally, write me at 32 Alameda Ct., Shrewsbury, N.J. 07701



MODEL BUILDER

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